FROSTS.

Frosts occurred in the various districts on the following dates:

New England.—1st to 29th.

Middle Atlantic states.—1st to 5th, 8th to 11th, 14th to 29th.

South Atlantic states.—2d, 3d, 15th, 16th, 18th to 22d, 24th to 29th.

Eastern Gulf states.—2d, 15th, 20th, 21st, 22d, 24th, 25th, 29th.

Western Gulf states.—1st, 2d, 3d, 14th, 15th, 16th, 20th, 21st, 23d to 26th, 28th, 29th.

Tennessee.—1st, 2d, 3d, 5th, 9th, 13th to 16th, 19th to 29th.

Ohio valley.—1st, 2d, 3d, 10th, 13th to 16th, 19th to 22d, 25th, 27th, 29th.

Lower lake region.—1st to 4th, 7th, 16th, 21st, 22d, 24th, 28th, 29th.

Upper lake region.—1st to 29th.

Extreme northwest.—1st to 29th.

Upper Mississippi valley.—1st to 29th.

Missouri valley.—1st to 29th.

Northern slope.—1st to 29th.

Middle slope.—1st to 29th.

Southern slope.—9th, 28th.

Southern plateau.—9th, 10th, 12th, 13th, 14th, 17th, 19th to 29th.

Middle plateau.—1st to 29th.

Northern plateau.—1st, 6th, 7th, 8th, 10th to 14th, 25th to 29th.

North Pacific coast region.—1st to 18th, 23d, 26th to 29th.

Middle Pacific coast region.—5th to 14th, 18th, 21st, 22d, 23d, 25th, 27th, 28th, 29th.

Frosts were also reported at Yuma, Arizona, on the 13th and 14th, and at Archer, Florida, on the 3d, 4th, 21st and 24th.

The following instances of damage to vegetation by frost have been reported:

Cleburne, Johnson county, Texas.—A heavy frost occurred on the 1st, causing serious injury to the oat crop.

Wilmington, North Carolina.—A heavy frost occurred on the 29th, damaging the fruit trees and early vegetation.

Milledgeville, Baldwin county, Georgia.—Vegetation in this part of the state was much retarded and seriously injured by the cold weather during the last half of the month, which was characterized by sudden changes of temperature.

ICE.

Under the heading "ice in rivers and harbors" in this REVIEW the subject of ice formation in the northern sections of the country is considered. In the Southern states the following instances of ice formation have been reported:

Alabama.—Auburn, 15th, 20th, 28th, 29th; Green Springs, 28th, 29th.

Arizona.—Fort Grant, 13th, 14th.

California.—Red Bluff, 8th, 11th, 13th; Sacramento, 6th, 7th, 8th to 14th; Salinas City, 13th.

Florida.—Jacksonville, ice formed one and one-half inches in thickness on the 29th; Pensacola, 29th.

Georgia.—Atlanta, 28th.

North Carolina.—Brevard, 16th, 20th, 21st, 22d, 24th to 29th; New River Inlet, 24th, 29th.

Texas.—El Paso, 28th; Galveston, 14th; Indianola, 14th, 15th.

PRECIPITATION.

[*Expressed in inches and hundredths.*]

The precipitation for February, 1884, in the north Pacific coast region was 4.22 below the average. Slight deficiencies—ranging from 0.17 to 0.64—occurred in the Florida peninsula, west Gulf states, and southern slope. In the Rio Grande valley, where the February average for several years is 0.98, no rain fell during the month, except an inappreciable amount at Brownsville, Texas. In the south Atlantic states and middle slope the monthly precipitation was about the average. In all other districts it was above the average. Large excesses occurred in southern California, New England, the middle Atlantic states, Ohio valley, and Tennessee. At Los Angeles, California, the monthly precipitation was 13.37, or nearly four times as great as the February average of the last twelve years. In the middle Atlantic states, New England, and the Ohio valley the excesses over the average were large and singularly uniform, being 2.59, 2.61, and 2.63 respectively; in Tennessee the excess amounted to 3.64. In the other districts where the precipitation was excessive the departures were less than 1.00, except in the lower lake region, where it was 1.30.

The general distribution of rainfall for the month of February and the districts of maximum departures from the normal in each year from 1873 to 1883, inclusive, are as follows:

Districts.	Maximum departures.	Year.	Distribution.
		1873	Deficient in the lake region, northwest, Gulf states, southern parts of Georgia and South Carolina, New York, northern Ohio, and northern New England; excessive in the northern parts of Alabama, Georgia, and South Carolina, in Tennessee, southern parts of Indiana and Ohio, Pennsylvania and southern New Jersey, Rhode Island and eastern Massachusetts and Connecticut.
		1874	Normal in the middle Atlantic states and Minnesota; deficient in the upper Mississippi valley, upper lake region, New England, and eastern Gulf states; excessive in the Missouri, Ohio and Saint Lawrence valleys, the south Atlantic and western Gulf states, and Tennessee.
Eastern Gulf states	+ 2.00	1875	Normal in the upper lake region; deficient in the lower lake region, Ohio and Saint Lawrence valleys, and on the Pacific coast; excessive in Minnesota, the upper Mississippi and Missouri valleys, Tennessee, Gulf states, and in the districts on the Atlantic coast.
Western Gulf states	+ 1.85		
South Atlantic states	+ 1.20		
Pacific coast	— 2.68		
Ohio valley	— 1.85		
Saint Lawrence valley	— 1.01		
Lower lake region	+ 2.30	1876	Normal in Minnesota and the lower Missouri valley; excessive in the lake region, upper Mississippi and Saint Lawrence valleys, New England, the middle Atlantic and western Gulf states; deficient in the Ohio valley, Tennessee, and in the south Atlantic and eastern Gulf states.
Saint Lawrence valley	+ 1.00		
Western Gulf states	+ 1.60		
Ohio valley and Tennessee	— 1.00		
Eastern Gulf states	— 0.85		
Portland, Oregon	+ 0.66	1877	Slight excess at Portland, Oregon; deficient in California and east of the Rocky mountains, the departures exceeding 1.00 in all districts, excepting the Missouri valley, Minnesota, south Atlantic and western Gulf states.
Tennessee and Ohio valley	— 2.90		
Eastern Gulf states	— 2.50		
Lower lake region	— 2.35		
Saint Lawrence valley	— 2.25		
New England	— 2.10		
California coast	+ 0.12	1878	Normal in the upper lake region and in the upper Mississippi and lower Missouri valleys; very large excess on the Pacific coast, and slight excess in the lower lakes and New England; deficient in Tennessee, the Ohio and Saint Lawrence valleys, Gulf states, and on the Atlantic coast south of New England.
Portland, Oregon	+ 5.27		
Tennessee	— 2.18		
Ohio valley	— 1.50		
Saint Lawrence valley	— 1.33		
Middle Atlantic states	— 1.25		
Portland, Oregon	+ 5.62	1879	Excessive on the Pacific coast, in Minnesota, and the upper lake region; deficient in all other districts, the departures being very slight in the lower lake region, New England, and south Atlantic states.
Upper lake region	+ 0.45		
California coast	+ 9.42		
Western Gulf states	— 1.00		
Middle Atlantic states	— 1.30		
Ohio valley	— 1.20		
Tennessee	+ 4.54	1880	Normal in Minnesota; excessive in the lake region, upper Mississippi, Ohio, and Saint Lawrence valleys, New England, Florida, Tennessee, and the western Gulf states; deficient on the Pacific coast, in the lower Missouri valley, middle and south Atlantic and Gulf states.
Saint Lawrence valley	+ 2.47		
Ohio valley	+ 1.55		
Portland, Oregon	— 2.51		
California coast	— 1.77		
Portland, Oregon	+ 4.43	1881	Deficient in California, the upper Missouri valley, south Atlantic states and Florida; excessive in all other districts.
Upper lake region	+ 3.09		
Lower Missouri valley	+ 2.83		
Eastern Gulf states	+ 2.83		
South Pacific coast region	— 1.87		
Upper Missouri valley	— 1.58		
Ohio valley	+ 3.74	1882	Deficient in Florida, the Rio Grande valley, and over the region between the ninety-second meridian and the Pacific coast north of the thirty-fifth parallel; excessive in all other districts.
Tennessee	+ 3.16		
Eastern Gulf states	+ 1.95		
Florida	— 2.09		
Middle Pacific coast region	— 1.98		
South Atlantic states	— 0.57		
Ohio valley	+ 3.86	1883	Normal in the middle slope; deficient on the Pacific coast, in the northern and middle plateau districts, extreme northwest, and in the south Atlantic and Gulf states; excessive in all other districts.
Lower lake region	+ 1.74		
Middle Atlantic states	+ 1.38		
North Pacific coast region	— 5.40		
Middle Pacific coast region	— 3.80		
Florida peninsula	— 2.21		

Table of excessive, and greatest and least monthly precipitation.

Station.	Specially heavy. Date.	Amt.	Duration	Largest monthly. Amount.	Smallest monthly. Station.	Amt.
Alabama.					*Colorado.*	
Green Springs	12	2.59		6.48	West Las Animas	0.50
Montgomery	16, 17	2.73			*Dakota.*	
Mount Vernon Barracks	16	2.44			Fort Buford	0.12
Mobile	13, 14	2.21			Fort Meade	0.33
Do	16, 17	2.05			Fort Randall	0.35
Arizona.					Fort Yates	0.35
Prescott	3, 4	2.05		6.55	Fort Sully	0.47
Do	5, 6	1.79			*Kansas.*	
Arkansas.					Salina	0.05
Lead Hill	10, 11, 12	8.31		10.93	Dodge City	0.28
Fort Smith	10, 11, 12	8.54		10.72	Atchison	0.31
Springfield	5, 6	4.82		10.15	Hector	0.37
Do	10, 11, 12	3.47			*Minnesota.*	
Mount Ida	5, 6, 7	5.60		9.80	Saint Vincent	0.24
Little Rock	6, 7, 8	4.94		9.79	*Montana.*	
Fayetteville				8.05	Fort Benton	0.11
California.					Fort Assinaboine	0.35
Newhall				14.53	Fort Keogh	0.37
Los Angeles	1, 2	4.45		13.37	*Nebraska.*	
Do	15, 16, 17	5.58			Peru	0.00
Summit				12.70	Hastings	0.21
Cisco				12.00	North Platte	0.23
Colton				11.38	Stockholm	0.23
Truckee				11.20	Dawson	0.24
San Fernando				10.60	Central City	0.25
Emigrant Gap				10.20	Ashland	0.30
Colfax				9.73	Inavale	0.30
Ravenna				9.50	Fort Niobrara	0.34
Spadra				8.80	Keene	0.38
Alta				8.60	Falls City	0.39
Knoxville				8.08	Crete	0.41
Mojave				7.67	Table Rock	0.45
Auburn				7.63	Fort Robinson	0.50
Keene				7.46	Syracuse	0.50
Tehachapi				7.26	*Nevada.*	
White Water				6.96	Wadsworth	0.50
Angel Island				6.85	*New Mexico.*	
San Francisco				6.65	Fort Craig	0.04
Gilroy				6.65	Fort Wingate	0.50
Pajaro				6.33	*Texas.*	
Boca				6.30	Rio Grande City	0.00
Niles				6.18	Fort Davis	0.00
Pleasanton				6.18	Brownsville	t'ce
Ione				6.13	Indianola	0.04
Sacramento	15, 16, 17	3.03			El Paso	0.20
Fort Gaston	19, 20	2.15			Fort Elliott	0.27
Connecticut.					Fort Concho	0.48
Voluntown				6.30	*Wyoming.*	
Delaware.					Cheyenne	0.26
Delaware Breakwater				6.14	Fort Bridger	0.48
District of Columbia.						
Distributing Reservoir				7.19		
Washington City				6.84		
West Washington				6.15		
Georgia.						
Atlanta	16, 17	2.41				
Milledgeville	1	2.00	2 hours			
Florida.						
Mayport	16, 17	2.79				
Sanford	16	2.50				
Fort Barrancas	16, 17	2.08				
Illinois.						
Greenfield				8.90		
Mascoutah				6.70		
Golconda				6.61		
Swanwick				6.18		
Cairo	5, 6	2.41				
Indiana.						
Marengo				10.80		
Vevay	6	3.50		10.23		
Laconia	5, 6, 7	4.11		9.19		
Jeffersonville	5, 6, 7	3.98		8.81		
Salem				7.75		
Sunman	4, 5	2.00		7.48		
Hanover				7.45		
Huntingburg				6.88		
Blue Lick				6.83		
Princeton				6.70		
Degonia				6.59		
Martinsville				6.40		
Evansville				6.35		
Kentucky.						
Louisville	5, 6	4.11		9.84		
Frankfort				8.56		
Bowling Green	6	2.73		6.89		
Louisiana.						
Shreveport	7, 8	3.14				
Maine.						
Eastport	23	3.06		9.38		
Gardiner				7.29		
Cornish				7.28		
Portland				6.92		
Orono				6.85		
Maryland.						
Fallston				7.01		
Receiving Reservoir (near Washington City).				6.82		
Baltimore				6.69		
Woodstock				6.09		
Ocean City				6.46		
McDonogh				6.04		
Massachusetts.						
Princeton				7.44		
Provincetown				7.34		
Westborough				7.12		
Charlestown				6.35		

Table of excessive, and greatest and least monthly precipitation.—Continued.

Station.	Specially heavy. Date.	Amt.	Duration.	Largest monthly. Amount.	Smallest monthly. Station.	Amt.
Massachusetts—Continued.						
Worcester				6.23		
Fall River				6.15		
Mississippi.						
Vicksburg	6, 7	2.31		6.73		
Missouri.						
Centreville				6.21		
Pierce City	11, 10	2.50				
Lebanon	9, 10	2.25				
Nebraska.						
Clear Creek	3, 4	3.53				
New Brunswick.						
Saint Andrews				6.23		
New Hampshire.						
Mount Washington				7.55		
New Jersey.						
Atlantic City				7.44		
Vineland				6.78		
Caldwell				6.51		
Cape May				6.22		
Little Egg Harboor				6.08		
New York.						
Fort Hamilton				6.06		
North Carolina.						
Highlands	13	2.00		10.10		
Do	16, 17	2.35				
Brevard	16, 17	3.00		10.07		
Charlotte	19	2.10		6.43		
Statesville	19, 20	2.15		6.06		
Lenoir	13, 14	2.10				
Nova Scotia.						
Yarmouth				7.70		
Halifax				6.17		
Ohio.						
Cincinnati	4, 5, 6	4.56		8.87		
Quaker City				8.19		
Jacksonburg				7.65		
Canal Dover	4, 5, 6	2.59		7.57		
Logan	6	2.37		7.52		
Lebanon				6.78		
Waverly				6.65		
Washington	7	3.74		6.43		
Portsmouth				6.11		
Oregon.						
Albany	18, 19	4.90		8.90		
Astoria				7.13		
Pennsylvania.						
Millville Depot				7.40		
West Chester				7.29		
Rhode Island.						
Block Island				7.31		
Tennessee.						
Riddleton	13	2.15		11.32		
Careyville				10.66		
Maryville	8	2.86		10.43		
Do	13	2.23				
Flat Creek				9.91		
Beech Grove				9.65		
Memphis	5 to 10	6.19		9.64		
Manchester				9.24		
Andersonville				9.18		
Grassy Cove				9.18		
Parksville				8.97		
Savannah				8.94		
Chattanooga	7, 8	4.40		8.81		
Smithville (near)	7	2.00		8.80		
Dyersburg	6	3.24		8.69		
Grief	7	3.00		8.57		
Do	9	2.12				
Franklin				8.51		
Knoxville	7, 8, 9	4.28		8.51		
Alexandria				8.47		
Florence Station				8.40		
Austin				8.27		
Nashville				8.18		
Huntingdon				8.14		
Gadsden	6	2.30		8.11		
Waverly				8.10		
Milan				7.96		
Pulaski				7.83		
Hurricane Switch				7.70		
Bolivar	7	2.02		7.46		
Jonesborough				7.43		
Ashwood				7.30		
Sailor's Rest				7.22		
Fostoria	9	2.40		6.90		
McKenzie				6.82		
Hurdison's Mills	7	2.16		6.63		
Texas.						
Clarksville	12	4.02		10.38		
New Ulm	12	2.06				
Virginia.						
Lynchburg	14, 15	3.77		9.02		
Variety Mills				7.12		
Johnsontown				6.55		
Washington Territory.						
Neah Bay	23	3.00		8.00		
Pysht	19	2.25		7.98		
Bainbridge Island	22	2.80				

The distribution of rainfall over the United States and Canada for February, 1884, as determined from the reports from more than six hundred stations, is exhibited on chart iv.

In the first column of the following table is shown the average precipitation for February in each of the various districts for several years, as determined from observations made at the Signal Service stations; in the second column are given the averages for February, 1884, and the third column shows the excess or deficiency of February, 1884, as compared with the average:

Average precipitation for February, 1884.

Districts.	Average for February. Signal-Service observations.		Comparison of Feb., 1884, with the average for several years.
	For several years.	For 1884.	
	Inches.	*Inches*	*Inches.*
New England	3.84	6.47	2.63 excess.
Middle Atlantic states	3.21	5.80	2.59 excess.
South Atlantic states	4.00	4.09	0.09 excess.
Florida peninsula	2.54	1.90	0.64 deficiency.
Eastern Gulf states	5.11	5.40	0.29 excess.
Western Gulf states	4.16	3.79	0.37 deficiency.
Rio Grande valley	0.98	0.00	0.98 deficiency.
Tennessee	5.14	8.78	3.64 excess.
Ohio valley	3.81	6.42	2.61 excess.
Lower lake region	2.37	3.67	1.30 excess.
Upper lake region	1.81	2.71	0.90 excess.
Extreme northwest	0.66	1.05	0.39 excess.
Upper Mississippi valley	2.50	2.66	0.16 excess.
Missouri valley	0.90	1.30	0.40 excess.
Northern slope	0.44	0.68	0.24 excess.
Middle slope	0.42	0.47	0.05 excess.
Southern slope	0.62	0.45	0.17 deficiency.
Southern plateau	0.84	3.58	2.74 excess.
Northern plateau	2.35	3.36	1.01 excess.
North Pacific coast region	8.47	4.25	4.22 deficiency.
Middle Pacific coast region	4.13	4.44	0.31 excess.
South Pacific coast region	2.06	7.48	5.42 excess.
Mount Washington, N. H.	3.87	7.55	3.68 excess.
Pike's Peak, Colo.	1.33	0.70	0.57 deficiency
Salt Lake City, Utah	1.25	2.23	0.98 excess.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The departures exhibited by the reports from the regular Signal Service stations, are shown in the table of average precipitation for February, 1884. Voluntary observers report the following notes in connection with this subject:

Arkansas.—Lead Hill, Boone county: monthly precipitation, 10.93, is 3.25 above the February average of the two preceding years.

Illinois.—Mattoon, Coles county: monthly precipitation, 5.44, is 1.11 below the February average of the last five years.

Riley, McHenry county: monthly precipitation, 2.20, is 0.57 above the February average of the last twenty-one years. The precipitation for the winter season of 1883–4 is 4.67, or 0.77 below the winter average of the last twenty years.

Anna, Union county: monthly precipitation, 5.10, is 0.99 above the February average of the last nine years.

Indiana.—Laconia, Harrison county: monthly precipitation, 9.19, is the largest occurring in February during the last eighteen years.

Wabash, Wabash county: monthly precipitation, 4.48, is 0.83 above the February average of the last eight years.

Kansas.—Fort Scott, Bourbon county: monthly precipitation, 2.53, is 0.86 below the February average of the last four years.

Independence, Montgomery county: monthly precipitation, 2.25, is 0.15 below the February average of the last twelve years.

Wellington, Sumner county: monthly precipitation, 0.71, is 0.61 below the February average of the last five years.

Lawrence, Douglas county: monthly precipitation, 1.13, is 0.20 below the February average of the last seventeen years.

Maine.—Gardiner, Kennebec county: monthly precipitation, 7.29, is 3.88 above the February average of the last forty-eight years, and is, with the exception of 9.47 in 1853, the largest February precipitation of that period.

Maryland.—Fallston, Harford county: monthly precipitation, 7.01, is 3.44 above the February average of the last fifteen years.

Massachusetts.—Worcester, Worcester county: monthly precipitation, 6.24, is 3.17 above the February average of the last forty-five years. The largest February precipitation of that period, 8.09, occurred in 1853; the smallest, 0.76, occurred in 1877.

New Jersey.—South Orange, Essex county: monthly precipitation, 4.85, is 0.97 above the February average of the last fourteen years. The precipitation for the winter season of 1883–4 is 14.91, or 4.82 above the winter average of the last fourteen years.

New York.—Palermo, Oswego county: monthly precipitation, 3.60, is 1.40 above the February average of the last thirty-one years.

North Volney, Oswego county: monthly precipitation, 3.25, is 0.48 above the average of the last twelve years. The total precipitation for the winter season of 1883–4, is 9.80, or 0.49 above the average of the last twelve years.

Ohio.—Wauseon, Fulton county: monthly precipitation, 5.02, is 2.12 above the average of the last ten years. The largest February precipitation of that period, 6.81, occurred in 1876; the smallest, 0.12, occurred in 1877.

Texas.—New Ulm, Austin county: monthly precipitation, 2.58, is 2.72 below the February average of the last twelve years. The largest February precipitation of that period, 10.94, occurred in 1882; the smallest, 1.13, occurred in 1879.

Virginia.—Variety Mills, Nelson county: monthly precipitation, 7.12, is 4.30 above the February average of the last five years, and is the largest occurring during that period.

Wytheville, Wythe county: monthly precipitation, 5.33, is 1.93 above the February average of the last twenty years, and has been exceeded but twice during that period.

West Virginia.—Helvetia, Randolph county: monthly precipitation, 5.24, is 0.77 above the February average of the last eight years.

Table of rainy and cloudy days, relative humidity, and dew-point for Feb., 1884.

Districts.	† Rainy days.	‡ Cloudy days.	Rel. humidity. *	Dew-point.
			Percentages.	° °
New England	From 18 to 22	From 9 to 18	From 75.7 to 86.3	From 19.5 to 31.2
Middle Atlantic states	" 14 " 23	" 6 " 19	" 66.4 " 87.6	" 23.1 " 42.5
South Atlantic states	" 10 " 10	" 2 " 12	" 63.0 " 84.2	" 37.5 " 52.9
Florida peninsula	" 11 " 13	" 3 " 5	" 75.0 " 79.7	" 56.3 " 64.1
East Gulf states	" 10 " 10	" 6 " 10	" 66.5 " 77.4	" 43.8 " 50.5
West Gulf states	" 8 " 14	" 6 " 14	" 68.5 " 80.2	" 32.8 " 53.3
Rio Grande valley	" 0 " 1	" 3 " 6	" 61.9 " 71.1	" 50.4 " 56.4
Ohio valley	" 17 " 25	" 11 " 16	" 73.1 " 78.6	" 26.9 " 34.9
Tennessee	" 19 " 27	" 13 " 16	" 72.0 " 77.1	" 37.9 " 39.2
Lower lake region	" 21 " 26	" 13 " 27	" 74.1 " 84.8	" 21.3 " 25.7
Upper lake region	" 18 " 27	" 9 " 22	" 69.5 " 82.5	" 0.3 " 19.9
Extreme northwest	" 13 " 25	" 4 " 9	" 77.5 " 87.4	" —13.8 " —3.5
Upper Mississippi valley	" 16 " 22	" 8 " 15	" 64.8 " 78.3	" 4.5 " 34.4
Missouri valley	" 11 " 20	" 8 " 12	" 64.9 " 81.1	" — 1.1 " 17.2
Northern slope	" 9 " 18	" 3 " 15	" 50.3 " 84.3	" — 5.8 " 11.8
Middle slope	" 3 " 19	" 2 " 8	" 57.2 " 80.7	" — 2.2 " 22.5
Southern slope	" 0 " 10	" 6 " 11	" 49.4 " 70.7	" 30.2 " 36.0
Southern plateau	" 6 " 14	" 2 " 11	" 46.8 " 70.1	" 27.9 " 36.9
Northern plateau	" 5 " 14	" 10 " 12	" 74.0 " 79.4	" 15.5 " 24.6
North Pacific coast region	" 12 " 17	" 6 " 12	" 78.7 " 84.0	" 28.5 " 33.2
Middle Pacific coast region	" 8 " 16	" 4 " 9	" 70.8 " 78.0	" 35.4 " 42.5
South Pacific coast region	" 6 " 15	" 5 " 10	" 54.9 " 71.1	" 38.4 " 44.2
Mt. Washington, N. H.	Twenty-three	Three	" 87.9	" 10.9
Pike's Peak, Colo.	Nineteen	Four	" 80.7	" — 2.2
Salt Lake City, Utah	Eleven	Eight	" 57.2	" 17.9

* Relative humidity corrected for altitude. † Including all days on which rain or snow fell. ‡ Including all cloudy days—with or without snow.

SNOW.

The dates on which snow is reported to have fallen in the various districts are as follows:

New England.—1st to 6th, 8th to 15th, 17th to 29th.

Middle Atlantic states.—1st to 5th, 9th to 12th, 15th, 19th to 29th.

Western Gulf states.—13th to 16th, 19th, 27th, 29th.

Tennessee.—3d, 4th, 6th, 14th, 23d, 24th, 26th, 27th, 28th.

Ohio valley.—1st, 2d, 10th, 13th, 14th, 15th, 19th, 20th, 23d to 29th.

Lower lake region.—1st to 15th, 19th to 29th.

Upper lake region.—1st to 29th.

Extreme northwest.—1st to 13th, 15th to 29th.

Upper Mississippi valley.—1st to 14th, 16th to 29th.

Missouri valley.—2d to 8th, 10th to 19th, 22d to 29th.

Northern slope.—1st to 29th.

Middle slope.—3d to 8th, 10th to 13th, 15th to 19th, 21st to 29th.

Southern plateau.—3d, 4th, 6th, 7th, 11th, 12th, 15th to 18th.

Middle plateau.—1st to 12th, 15th to 20th, 26th.

Northern plateau.—2d to 10th, 14th to 22d, 29th.

North Pacific coast region.—3d to 10th, 14th to 20th.

Middle Pacific coast region.—4th, 6th, 7th, 10th, 14th, 15th, 18th.

Snow also fell at the following stations not included in the districts named above:

Auburn, Alabama, 13th, 19th; Fort Concho, Texas, 12th, 13th.

Snow storms of unusual severity, impeding railroad travel, etc., have been reported as follows:

Truckee, California.—The heavy snow-fall of the 5th blockaded the Central Pacific railroad near Boca.

Durango, La Plata county, Colorado.—This place was entirely cut off from communication with other points by snow-blockades from the 5th to the 18th. On the latter date the snow was two and one-half feet deep on the level. In the canyon above Elk Falls, for a distance of four miles, the snow averaged fifty-feet deep, and at Barker's Park it was reported to have been six feet deep on the level.

Saint Paul, Minnesota.—The snow storm of the 11th and 12th caused great inconvenience throughout the northwest. The fall of snow was comparatively light, but the high winds caused it to drift badly. The greatest inconvenience resulting from the storm was experienced in the southern parts of Dakota and Minnesota and in northern Nebraska.

Salt Lake City, Utah.—The Oregon Short Line railroad was blockaded with snow from the 10th to 28th. On the 11th the heaviest snow-fall of the season occurred, about ten inches having fallen. Nearly all trains were delayed, and business in the city was almost entirely suspended. On the 18th a snow-slide occurred at Park City (three miles southeast of Salt Lake City), a small mining camp, which resulted in the death of three persons.

Buffalo, New York.—The snow storm of the 28th seriously impeded travel in this vicinity.

Saratoga, New York.—Great inconvenience was experienced on the railroads in consequence of the snow storm of the 28th. The snow-drifts along the line of the Delaware and Hudson road averaged from ten to twenty feet deep.

Oswego, New York.—The heavy snow storm on the 28th caused temporary suspension of travel on the railroads in this vicinity.

New York City.—A heavy snow storm prevailed on the 28th, causing considerable damage to trees and telegraph lines.

Concord, New Hampshire.—The snow storm on the 28th was one of the severest of the season. The snow fell to an average depth of eighteen inches, and the high winds caused it to drift badly. All trains were delayed in consequence.

Boston, Massachusetts.—On the 28th a heavy snow storm prevailed, which caused great damage to the telegraph and telephone lines.

New Haven, Connecticut.—Great damage was done to the telephone and telegraph lines in this vicinity by the heavy snow storm of the 28th.

Bangor, Maine.—Railroad travel was impeded and telegraph lines prostrated by the snow-storm on the 28th.

Portland, Maine.—Telegraphic communication was seriously interrupted by the severe snow-storm on the 28th.

The following instances of snow fall in localities where snow is of uncommon occurrence have been reported:

Marysville, Yuba county, California.—A peculiar snow storm occurred on the afternoon of the 6th. The weather during the earlier part of the day had been fine, but at 4 p. m. the sky became suddenly obscured by a black cloud and soon afterwards snow began to fall. It continued for more than one hour, covering the streets and housetops to a depth of more than one inch.

Sacramento, California.—At 11 p. m. of the 14th a few flakes of snow fell.

SNOW FROM A CLOUDLESS SKY.

Yates Centre, Woodson county, Kansas.—Snow fell from a cloudless sky from 9.30 to 9.45 a. m. of the 9th.

LARGEST MONTHLY SNOW-FALLS.

[*Expressed in inches and tenths.*]

The following are the largest monthly snow-falls reported from the various states and territories during the month:

California.—Cisco, 120; Summit, 120; Truckee, 112; Emigrant Gap, 102; Boca, 63; Alta, 31; Tehachapi, 28; Keene, 27; Mojave, 22; Colfax, 15; Ravenna, 7.

Colorado.—Denver, 8.6; Pike's Peak, 7.6; Pueblo, 7.2.

Connecticut.—New Haven, about 17; Southington, 16.5; Bethel, 14.

Dakota.—Webster, 18; Yankton, 18; Alexandria, 10.4; Deadwood, about 10; Rapid City, 9.3; Richardton, 9; Bismarck, 8.7; Fort Sisseton, 8.2; Fort Pembina, 8; Huron, 5.8; Fort Bennett, 5.7; Vermillion, 5.

Idaho.—Fort Lapwai, 30; Lewiston, 26.5; Boisé City, about 8.

Illinois..—Marengo, 8.8; Polo, 8.8; Riley, 8.8; Sycamore, 8.5; Chicago, 7.8; Aurora, 7.7; Rockford, 7.6; Prairieville, 7.5; Sandwich, 6.5.

Indiana.—Lafayette, 8.6; Logansport, 6.2; Griffin Station, 5.2.

Iowa.—Guttenburg, 18; Des Moines, about 17; Dubuque, about 17; Independence, 17; Indianola, 14.8; Logan, 12; Humboldt, 11.9; Cresco, 11.5; Monticello, 8.7; Cedar Rapids, 8.5; Muscatine, 7.

Kansas.—Allison, 5.

Maine.—Portland, about 40; Gardiner, 32; Cornish, 27; Orono, 26.5; Eastport, about 22.

Massachusetts.—Worcester, 32.2; Princeton, 23.8; Westborough, 22; Rowe, 18; Charlestown, 17.4: Boston, 15.1; Mendon, 14; Milton, 10; Amherst, 9.5; Fall River, 9.5; Somerset, 9.5.

Michigan.—Manistique, 40.3; Northport, 36.6; Traverse City, 26.2; Escanaba, about 24; Alpena, 23.3; Marquette, 20; Kalamazoo, 17; Ionia, 15.2; Detroit, about 15; Grand Haven, about 14; Thornville, 12; Lansing, 10.2; Mottville, 10; Swartz Creek, 6.2; Hudson, 6; Hillsdale, 5.

Minnesota.—Chester, 32; Duluth, 27; Minneapolis, 22; Northfield, 18; Fort Snelling, 13.4; Moorhead, 13.2; Saint Paul, 12.7.

Missouri.—Pierce City, 5.5.

Montana.—Fort Custer, about 13; Helena, 12.5; Fort Shaw, 8.2; Fort Ellis, 7.5; Fort Maginnis, 6.9.

Nebraska.—Genoa, 11; Johnson, 10.1; Omaha, about 9; De Soto, 7.5; Peru, 7.5; Red Willow, 7; Fremont, 6.2.

Nevada.—Fort McDermitt, 48; Battle Mountain, 23; Carson City, 22.9; Beowawe, 16; Reno, 12; Carlin, 11; Elko, 10; Palisade, 10; Winnemucca, 10; Otego, 8.5; Tecoma, 8.5; Golconda, 7.8; Toano, 7.8; Humboldt, 7.5; Halleck, 7.2; Wells, 7; Browns, 6.2; Wadsworth, 5.

New Hampshire.—Wolfborough, about 29; Ashland, about 24; Bristol, 24; Mount Washington, about 20.

New Jersey.—Caldwell, 11.5; Paterson, 10.5; South Orange, 9; Somerville, 8.5; Newark, 5.5.

New York.—Buffalo, about 15; Oswego, about 15; Humphrey, 14.5; Mountainville, 11.7; White Plains, 11; Flushing, 9.5; Menand Station (near Albany), 9.3; Albany, about 9; Rochester, 6.9; Factoryville, 5.8; Palermo, 5.2; Ithaca, 5; Penn Yan, 5.

Ohio.—Cleveland, 10.1; Garrettsville, 7.8; Hiram, 6; Wauseon, 5.6; Jacksonburg, 5.

Oregon.—Eola, 32; Albany, 28; Portland, 23.5; Linkville, 23; Lake View, 22.4; Astoria, 8.6.

Pennsylvania.—Erie, about 17; Dyberry, 10; Easton, 9; Grampian Hills, 9; Drifton, 8.2; Millville Depot, 7.6; Wellsborough, 7.5; Troy, 6.2; Wilkesbarre, 5.3; Catawissa, 5.2; Germantown, 5.

Tennessee.—Ashwood, 7; Austin, 6.5.

Utah.—Salt Lake City, 22.1; Nephi, 21.5; Promontory, 16.5;

Logan, 14; Corinne, 13; Ogden, 13; Terrace, 9; Kelton, 7.2; Blue Creek, 4.5.

Vermont.—Strafford, 20; Newport, 19.3; Lunenburg, 18; Woodstock, 15.2; Dorset, 13.5; Burlington, 8.5.

Virginia.—Lynchburg, 24.

Washington Territory.—Bainbridge Island, 33.2; Spokane Falls, about 29.

West Virginia.—Helvetia, 6.5.

Wisconsin.—Neillsville, 33.8; Embarrass, 30.7; Wausau, 25.2; Franklin, 25; Milwaukee, about 20; Madison, 16; Sussex, 15.2; Lancaster, 14.5; La Crosse, 14.2; Ripon, 13.8; Manitowoc, 11; Beloit, 9.2; Evansville, 6.

DEPTH OF UNMELTED SNOW ON GROUND AT END OF MONTH.

[*Expressed in inches and tenths.*]

Arkansas.—Lead Hill, trace.

Colorado.—Pike's Peak, 30; Golden, 7.2; Denver, 4.

Connecticut.—Southington, 10; Bethel, 6; New Haven, 5; New London, 2.2.

Dakota.—Webster, 19.7; Deadwood, 8; Fort Buford, about 5; Bismarck, 4; Rapid City, about 4; Huron, 4; Alexandria, 2; Fort Bennett, trace.

Illinois.—Polo, 18; Prairieville, 12; Riley, 0 to 12; Marengo, 0 to 12; Sycamore, 7; Sandwich, 6; Mascoutah, 3.5; Aurora, 2; Chicago, 2; Golconda, 2; Monmouth, 1; Cairo, trace; Swanwick, trace; Palestine, trace.

Indiana.—Vevay, 2; Jeffersonville, 1.8; Laconia, 1.5; Lafayette, 1.5; Fort Wayne, 1; Griffin Station, 1; Indianapolis, 1; Sunman, 1; Logansport, 0.5.

Iowa.—Independence, 18 to 24 in the woods; Manchester, 17; Cresco, 15; Monticello, 14; Humboldt, 6.4; Cedar Rapids, about 6; Dubuque, 5; Des Moines, 2 to 5; Muscatine, 2.5; Ottumwa, 2.1; Indianola, 2; Logan, 2; Davenport, 0 to 0.7; Keokuk, trace.

Kansas.—Leavenworth, trace.

Kentucky.—Frankfort, 0.9; Louisville, trace.

Maine.—Gardiner, 30; Portland, 28; Orono, 14; Eastport, 7.

Massachusetts.—Rowe, 33; Worcester, 26.2; Westborough, 22; Princeton, 20; Mendon, 14; Charlestown, 6; Milton, 5; Fall River, 4; Somerset, 4; Taunton, 4; Boston, 3; Provincetown, 1.

Michigan.—Manistique, 38; Northport, 37; Marquette, 26; Traverse City, 20; Grand Haven, 12; Alpena, 11; Ionia, 9; Thornville, 8; Hudson, 5; Port Huron, 5; Escanaba, 4; Mackinaw City, 4; Swartz Creek, about 4; Hillsdale, 3; Detroit, 1.

Minnesota.—Chester, about 36; Minneapolis, 24; Moorhead, 18; Saint Paul, 11.5; Saint Vincent, 5.

Missouri.—Curryville, 2.

Montana.—Fort Custer, 3; Fort Maginnis, 2.5; Fort Assinaboine, 1.5.

Nebraska.—De Soto, 0.5; Fremont, trace; Marquette, trace.

Nevada.—Carson City, in drifts.

New Hampshire.—Bristol, 48; Mount Washington, 15.

New Jersey.—Caldwell, 6; Paterson, 6; Somerville, 5; South Orange, 4; Newark, 3.

New York.—North Volney, about 14 in the woods; Palermo, 12; Cooperstown, 6; Humphrey, 6; Mountainville, 5; Buffalo, 4; Menand Station (near Albany), 4; White Plains, 4; Flushing, 3; Oswego, 3; Albany, 2; Penn Yan, 2; Rochester, 2; Ithaca, 1; New York City, 1.

Ohio.—Cleveland, 5; Garrettsville, 4; Hiram, 4; Jacksonburg, 4; Ruggles, 3; North Lewisburg, 2; Portsmouth, 2; Wauseon, 2; College Hill, 1.2; Sandusky, 1: Westerville, 1; Toledo, 0.5; Canal Dover, trace; Cincinnati, trace; Columbus, trace.

Oregon.—Albany, in drifts.

Pennsylvania.—Dyberry, about 12; Grampian Hills, 5; Drifton, 4; Wilkesbarre, 2.5; Erie, 2; Haverford College, 2; West Chester, 1.5; Catawissa, 1; Leetsdale, 1; Pittsburg, 1; Troy, 1; Millville Depot, 0.5; Wellsboro, trace.

Rhode Island.—Block Island, trace.

Tennessee.—Ashwood, 5; Austin, 4; Nashville, 1.7; Knoxville, 0.5; Milan, trace.

Utah.—Logan, 3; Nephi, 1 to 3.

Vermont.—Strafford, 24; Woodstock, 17; Dorset, 6; Burlington, 4.

Virginia.—Wytheville, 2.5; Marion, trace.

Washington Territory.—Spokane Falls, 10.

West Virginia.—Helvetia, 4.

Wisconsin.—Embarrass, 26; Neillsville, 26; La Crosse, 20; Franklin, 18; Madison, 18; Ripon, 18; Sussex, 18; Lancaster, 12; Milwaukee, 10; Evansville, 8; Beloit, 7.

SLEET.

Sleet is reported to have fallen in the various districts on the following dates:

New England.—4th, 5th, 7th, 8th, 11th, 12th, 13th, 20th, 23d, 24th, 28th.

Middle Atlantic states.—4th, 8th, 11th, 26th.

South Atlantic states.—Highlands, North Carolina, 22d.

Western Gulf states.—12th to 15th.

Tennessee.—Memphis, 19th; Chattanooga, 27th.

Ohio valley.—8th, 10th, 19th, 26th.

Lower lake region.—3d to 8th, 11th, 12th, 13th, 22d.

Upper lake region.—4th, 5th, 6th, 10th to 14th, 19th.

Extreme northwest.—Fort Totten, Dakota, 24th.

Upper Mississippi valley.—1st, 4th, 8th, 11th, 12th, 13th, 16th, 17th, 19th, 25th, 27th.

Missouri valley.—3d, 4th, 7th, 8th, 10th, 11th, 12th, 16th, 19th, 23d, 24th, 29th.

Middle slope.—4th, 6th, 10th, 11th, 12th, 15th, 16th.

Southern slope.—Fort Stockton, Texas, 13th.

Southern plateau.—Prescott, Arizona, 6th; Willcox, Arizona, 16th.

North Pacific coast region.—Fort Canby, Washington Territory, 8th, 18th; Pysht, Washington Territory, 6th.

Middle Pacific coast region.—San Francisco, California, 6th.

HAIL.

In several instances the tornadoes, which occurred on the 19th in the southern states, were accompanied by large hail. These have been mentioned in connection with the reports given under the heading "local storms." In the several states and territories, hail storms were reported to have occurred as follows:

Alabama.—Auburn and Green Springs, 19th.

Arizona.—Prescott, 6th.

Arkansas.—Little Rock, 13th, 22d.

California.—Angel Island, 5th; Salinas City, 7th; Cape Mendocino, 4th, 6th, 10th; San Francisco, 5th.

Dakota.—Webster, 24th.

Florida.—Key West, 18th; Sanford, 13th.

Georgia.—Andersonville, Forsyth, and Augusta, 19th; Feagin and Savannah, 20th.

Illinois.—Anna and Mattoon, 19th; Cairo, 12th, 19th; Springfield, 10th.

Indian Territory.—Cantonment, 11th.

Iowa.—Guttenberg, 1st. 13th; Logan, 1st; Monticello and Oskaloosa, 4th, 12th.

Kansas.—Independence, 8th; Yates Centre, 7th, 11th.

Louisiana.—Liberty Hill, 19th.

Maine.—Bangor, 5th; Cornish, 5th, 8th, 23d; Gardiner, 5th, 9th.

Massachusetts.—Charlestown, 8th; Provincetown, 8th, 14th, 18th.

Michigan.—Detroit. 6th; Hudson, 4th, 6th, 11th, 12th.

Missouri.—Conception, 10th; Curryville, 16th; Saint Louis, 17th.

Nebraska.—Genoa, 4th.

New Hampshire.—Bristol, 9th, 12th, 13th, 16th, 17th.

New York.—Albany, 14th, 20th; Menand Station (near Albany), 20th; Syracuse, 11th.

North Carolina.—Highlands, 22d; Weldon, 15th; Statesville,

14th, 19th; New River Inlet and Wilmington, 23d; Charlotte, 1st; Scotts Hill, 19th, 22d.

Oregon.—Albany, 4th; Portland, 4th, 9th.

Tennessee.—Austin, 13th; Nashville, 13th, 19th; Knoxville and Chattanooga, 19th.

Texas.—Clarksville, 19th, 27th; Cleburne, 15th.

Utah.—Logan, 4th; Nephi, 5th, 11th, 18th, 26th.

Virginia.—Marion, 14th.

Washington Territory.—Crescent Bay, 16th.

Wisconsin.—Embarrass, 4th; Franklin, 4th, 11th.

It is probable that some of the above reports are incorrect and should have been recorded as sleet instead of hail.

WINDS.

The most frequent directions of the wind during February, 1884, at the Signal Service stations, are shown on chart iii. by arrows flying with the wind. The prevailing directions were from north to west in the upper lake region, upper Mississippi and Missouri valleys; in the Gulf states and Tennessee they were mostly from the south; in the lower lake region, Ohio valley, and on the Atlantic and Pacific coasts they were variable.

TOTAL MOVEMENTS OF THE AIR.

[*In miles.*]

In the following table are given the stations reporting the largest and smallest total movements of the air in each of the various districts:

Districts.	Stations reporting largest.	Miles.	Stations reporting smallest.	Miles.
New England	Block Island, R. I.	11,175	New London, Conn.	5,585
Middle Atlantic states	Cape May, N. J.	12,390	Lynchburg, Va.	3,154
South Atlantic states	Fort Macon, N. C.	10,649	Augusta, Ga.	2,958
Florida peninsula	Cedar Keys	6,186	Sanford	4,530
Eastern Gulf states	Pensacola, Fla	5,800	Montgomery, Ala	4,408
Western Gulf states	Indianola, Tex.	10,853	Little Rock, Ark	3,539
Ohio valley	Louisville, Ky.	6,041	Cincinnati, Ohio	4,213
Tennessee	Nashville	5,152	Memphis	4,462
Lower lake region	Rochester, N. Y.	9,841	Toledo, Ohio	5,520
Upper lake region	Milwaukee, Wis.	8,536	Chicago, Ill	5,412
Extreme northwest	Fort Buford, Dak	7,180	Saint Vincent, Minn	5,119
Upper Mississippi valley	Saint Louis, Mo.	8,820	Saint Paul, Minn.	4,401
Missouri valley	Huron, Dak.	7,661	Leavenworth, Kan.	6 021
Northern slope	North Platte, Neb.	10,247	Deadwood, Dak	3,033
Middle slope	Dodge City, Kan	9,001	Denver, Colo.	4,782
Southern slope	Fort Concho, Tex	7,421	Fort Davis, Tex.	3,888
Southern plateau	Prescott, Ariz.	5,534	El Paso, Tex	3,158
Northern plateau	Boisé City, Idaho	3,151	Lewiston, Idaho	940
North Pacific coast region	Fort Canby, Wash. T.	7,714	Olympia, Wash. T.	1,265
Middle Pacific coast region	Red Bluff, Cal.	5,376	San Francisco, Cal	5,074
South Pacific coast region	Los Angeles, Cal	5,483	Yuma, Ariz.	4,780

On the summits of Mount Washington, New Hampshire, and Pike's Peak, Colorado, the total movements of the air were 24,810 and 21,011 miles, respectively, the record at the first-named station being incomplete on account of frost work. At Salt Lake City, Utah, the total movement was 4,075 miles.

HIGH WINDS.

On the summit of Mount Washington velocities of fifty miles or more per hour occurred on the following dates: 1st to 10th, 12th to 18th, 20th to 25th, 29th. The highest velocities recorded were: 80, nw., 1st; 104, w., 5th; 100, w., 6th; 120, sw., 13th; 112, w., 14th; 130, se., 20th (maximum for the month); 82, nw., 21st; 80, sw., 22d; 116, nw., 24th; 80, nw., 29th.

On the summit of Pike's Peak velocities of fifty miles or more per hour occurred on the following dates: 1st, 2d, 3d, 9th, 10th, 14th, 15th, 17th to 23d, 25th, 27th. The highest velocities recorded were: 83, sw., 10th; 76, w., 14th; 100, w., 15th (maximum for the month); 76, w., 18th; 76, nw., 19th.

Other stations reporting wind velocities of fifty miles or more per hour are as follows:

Cape May, New Jersey, 58, nw., 20th; 52, nw., 23d; 68, w., 28th; 66, w., 29th.

Delaware Breakwater, Delaware, 68, nw., 20th; 52, nw., 23d.

Fort Canby, Washington Territory, 64, s., 19th.

Fort Macon, North Carolina, 64, sw., 28th.

Sandy Hook, New Jersey, 60, nw., 23d; 62, nw., 29th.

Cape Henry, Virginia, 60, nw., 23d.

Fort Maginnis, Montana, 56, sw., 22d.

Kitty Hawk, North Carolina, 52, sw., 20th; 56, sw., 23d.

Moorhead, Minnesota, 56, se., 24th.

Eastport, Maine, 55, e., 28th.

Barnegat City, New Jersey, 52, nw., 28th and 29th.

Buffalo, New York, 52, w., 21st.

Indianola, Texas, 52 n., 27th.

Sandusky, Ohio, 52, w., 20th.

Vicksburg, Mississippi, 52, sw., 19th.

Cheyenne, Wyoming, 50, nw., 20th.

Chincoteague, Virginia, 50, nw., 1st.

LOCAL STORMS.

On the afternoon of February 19th several of the Southern states were visited by violent tornadoes. They were most destructive in Alabama, Georgia, and the Carolinas, and appear to have moved, generally, in a direction from southwest to northeast, causing great destruction of life and property. Reports from Atlanta, Georgia, on the 22d, stated that about three hundred persons were killed, nine hundred were injured, and that $2,000,000 worth of property had been destroyed in that state alone.

Below will be found, arranged by states, brief descriptions of the tornadoes above mentioned, as reported from the various localities in which they occurred; and also reports of other storms which were reported during February, 1884.

Alabama.—Montgomery: a storm occurred on the afternoon of the 19th, during which the wind attained a velocity of thirty-two miles per hour, blowing off the roofs of several buildings and causing other damage. The wind veered from south to northwest during the storm and the temperature fell from 80°.9 to 47°. In surrounding localities the storm was much more severe than in the immediate vicinity of Montgomery. From Kelleyton, Coosa county, to Wetumpka, Elmore county, (northeast of Montgomery,) large hail accompanied the storm and numerous buildings were blown down. At Cross Plains, Calhoun county, eight persons were killed and several wounded. At Marion, Perry county, (northwest of Montgomery) much property was destroyed and one person killed.

At Leeds, fifteen miles east of Birmingham, a dense funnel-shaped cloud, of black appearance, was observed at about 1 p. m. approaching from the southwest. When first seen the cloud was several miles distant, advancing with great rapidity and accompanied by a heavy roaring noise. At that time the whole sky was illuminated with a peculiar glow. As it neared Leeds black shafts darted in quick succession from the cloud toward the earth. At 1.30 p. m. the tornado swept over the town, destroying everything in its path. It followed the course of the Georgia Pacific railroad for a distance of six miles, strewing the road with debris throughout its path. The scene at Leeds after the storm was one of great destruction. Houses were blown away and not even their foundations remained; horses, mules, and cattle were killed, and in some instances missiles were driven through the bodies. In Leeds and vicinity, eleven persons were killed and thirty-one were wounded, many of the latter being fatally injured; twenty-seven dwellings were entirely destroyed together with many barns and other out buildings. The tornado was accompanid by hail of unusual size. At Brook's Gap, ten miles below Birmingham, nine houses were blown down and fifteen person injured. In the vicinity of Ladiga, Calhoun county, and Amberson's, Cherokee county, a violent storm occurred at about 3 p. m. A large number of houses were blown down and fourteen persons were reported to have been killed. Reports from Rock Run, Cherokee county, state that at 2 p. m. a tornado passed through that county, pursuing a northeasterly course and demolishing everything in its path, which was about one-half mile in width. Twenty-six persons in the immediate vicinity of Rock Run were killed and many others were injured.

Arizona.—Prescott: a severe southwesterly storm occurred on the 6th, during which the wind attained a velocity of forty-six miles per hour. Many large trees in the vicinity were prostrated.

California.—Cape Mendocino: a hurricane occurred on the